

3.2.10 Lower Bull Run Group Summary

3.2.10.1 Little Rocky Run Watershed

Description. Little Rocky Run Watershed is a medium-sized watershed, with approximately 13 miles of stream assessed. It is located along the middle of the southwestern boundary of the County. The watershed is entirely contained within the County Boundaries, and drains directly to Bull Run, which eventually discharges to the Potomac River.

Habitat. The habitat assessment results for Little Rocky Run Watershed are summarized by stream in Table 3-43. Habitat scores for each reach are depicted in Figure 3-66. Based on a length weighted habitat score of 102 (Table 3-2), Little Rocky Run Watershed is in the lower middle range of quality, compared to the rest of the County. Approximately 4.5 miles of stream were categorized as having “poor” habitat conditions, 7 miles as “fair,” and 1 mile as “good.”

CEM. Based on the CEM evaluations approximately half of the channels assessed in Little Rocky Run Watershed are in Evolutionary Stage 3 (Table 3-3) and the remainder are split between Stages 2 and 4. Figure 3-67 summarizes the CEM results for Little Rocky Run Watershed.

Infrastructure. The infrastructure inventory resulted in 153 inventory points. The most significant problem was related to an erosional area, which was given an impact score of 8. The infrastructure inventory results are summarized in Table 3-44. Figures 3-68, 3-69, 3-70, 3-71, and 3-72 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

3.2.10.2 Johnny Moore Creek Watershed

Description. Johnny Moore Creek Watershed is a medium-sized watershed, with approximately 12 miles of stream assessed. It is located along the middle of the southwestern boundary of the County. The watershed is entirely contained within the County Boundaries, and drains directly to Bull Run, which eventually discharges to the Potomac River.

Habitat. The habitat assessment results for Johnny Moore Creek Watershed are summarized by stream in Table 3-45. Habitat scores for each reach are depicted in Figure 3-66. Based on a length weighted habitat score of 104 (Table 3-2), Johnny Moore Creek Watershed is in the middle range of quality, compared to the rest of the County. Approximately 4 miles of stream were categorized as having “poor” habitat conditions, 6 miles as “fair,” and 1.5 miles as “good.”

CEM. Based on the CEM evaluations approximately 97 percent of the channels assessed in Johnny Moore Creek Watershed are in Evolutionary Stage 3 (Table 3-3). Figure 3-67 summarizes the CEM results for Johnny Moore Creek Watershed.

Infrastructure. The infrastructure inventory resulted in 127 inventory points. The most significant problem was related to an erosional area, which was given an impact score of 9. The infrastructure inventory results are summarized in Table 3-46. Figures 3-68, 3-69, 3-70,

3-71, and 3-72 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ ditches; and dumps, obstructions, and utilities, respectively.

3.2.10.3 Popes Head Creek Watershed

Description. Popes Head Creek Watershed is a large watershed, with approximately 50 miles of stream assessed. It is located along the middle of the southwestern boundary of the County. The watershed is entirely contained within the County Boundaries, and drains directly to Bull Run, which eventually discharges to the Potomac River.

Habitat. The habitat assessment results for Popes Head Creek Watershed are summarized by stream in Table 3-47. Habitat scores for each reach are depicted in Figure 3-66. Based on a length weighted habitat score of 103 (Table 3-2), Popes Head Creek Watershed is in the middle range of quality, compared to the rest of the County. Approximately 1 mile of stream was categorized as having “very poor” habitat conditions, 15 miles as “poor,” 30 miles as “fair,” and 3 miles as “good.”

CEM. Based on the CEM evaluations approximately 60 percent of the channels assessed in Popes Head Creek Watershed are in Evolutionary Stage 3 (Table 3-3), with most of the remainder of the watershed in Stage 4. Figure 3-67 summarizes the CEM results for Popes Head Creek Watershed.

Infrastructure. The infrastructure inventory resulted in 382 inventory points. The most significant problem was related to a pipe, which was given an impact score of 9. The infrastructure inventory results are summarized in Table 3-48. Figures 3-68, 3-69, 3-70, 3-71, and 3-72 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ ditches; and dumps, obstructions, and utilities, respectively.

TABLE 3-43
Habitat Assessment Summary for Little Rocky Run Watershed
Fairfax County Stream Physical Assessment

Stream	Linear Feet (Percent) of Stream					Total
	Very Poor	Poor	Fair	Good	Excellent	
Little Rocky Run	0 (0.00)	8,943 (19.26)	30,615 (65.95)	6,866 (14.79)	0 (0.00)	46,424
Tributary to Bull Run	0 (0.00)	656 (100.00)	0 (0.00)	0 (0.00)	0 (0.00)	656
Tributary to Little Rocky Run	0 (0.00)	7,880 (76.03)	2,484 (23.97)	0 (0.00)	0 (0.00)	10,365
Willow Springs Branch	0 (0.00)	6,185 (51.16)	5,905 (48.84)	0 (0.00)	0 (0.00)	12,090
Watershed Total	0 (0.00)	23,664 (34.03)	39,004 (56.09)	6,866 (9.87)	0 (0.00)	69,534

TABLE 3-44
Infrastructure Assessment Summary for Little Rocky Run Watershed
Fairfax County Stream Physical Assessment

Impact Score	0	1	2	3	4	5	6	7	8	9	10	>10	Total
Deficient Buffers	0	0	0	3	5	3	1	7	0	0	0	N/A	19
Crossings	13	17	21	9	3	2	0	1	0	0	0	N/A	66
Ditches and Pipes	24	10	10	2	0	1	1	0	0	0	0	N/A	48
Erosion	0	0	0	0	0	1	2	0	1	0	0	N/A	4
Head Cut	0	0	0	0	1	0	0	0	0	0	0	N/A	1
Obstruction	6	1	0	0	3	2	0	2	0	0	0	N/A	14
Utility	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	43	28	31	15	12	9	4	10	1	0	0	0	153

TABLE 3-45
Habitat Assessment Summary for Johnny Moore Creek Watershed
Fairfax County Stream Physical Assessment

Stream	Linear Feet (Percent) of Stream					Total
	Very Poor	Poor	Fair	Good	Excellent	
Johnny Moore Creek	0 (0.00)	3,293 (13.61)	13,451 (55.57)	7,460 (30.82)	0 (0.00)	24,204
Polecat Branch	0 (0.00)	1,570 (35.02)	2,914 (64.98)	0 (0.00)	0 (0.00)	4,484
Tributary to Bull Run	0 (0.00)	0 (0.00)	2,110 (100.00)	0 (0.00)	0 (0.00)	2,110
Tributary to Johnny Moore Creek	677 (2.34)	14,754 (50.96)	12,389 (42.79)	1,131 (3.91)	0 (0.00)	28,951
Tributary to Polecat Branch	0 (0.00)	0 (0.00)	2,344 (100.00)	0 (0.00)	0 (0.00)	2,344
Watershed Total	677 (1.09)	19,617 (31.59)	33,207 (53.48)	8,591 (13.84)	0 (0.00)	62,092

TABLE 3-46
Infrastructure Assessment Summary for Johnny Moore Creek Watershed
Fairfax County Stream Physical Assessment

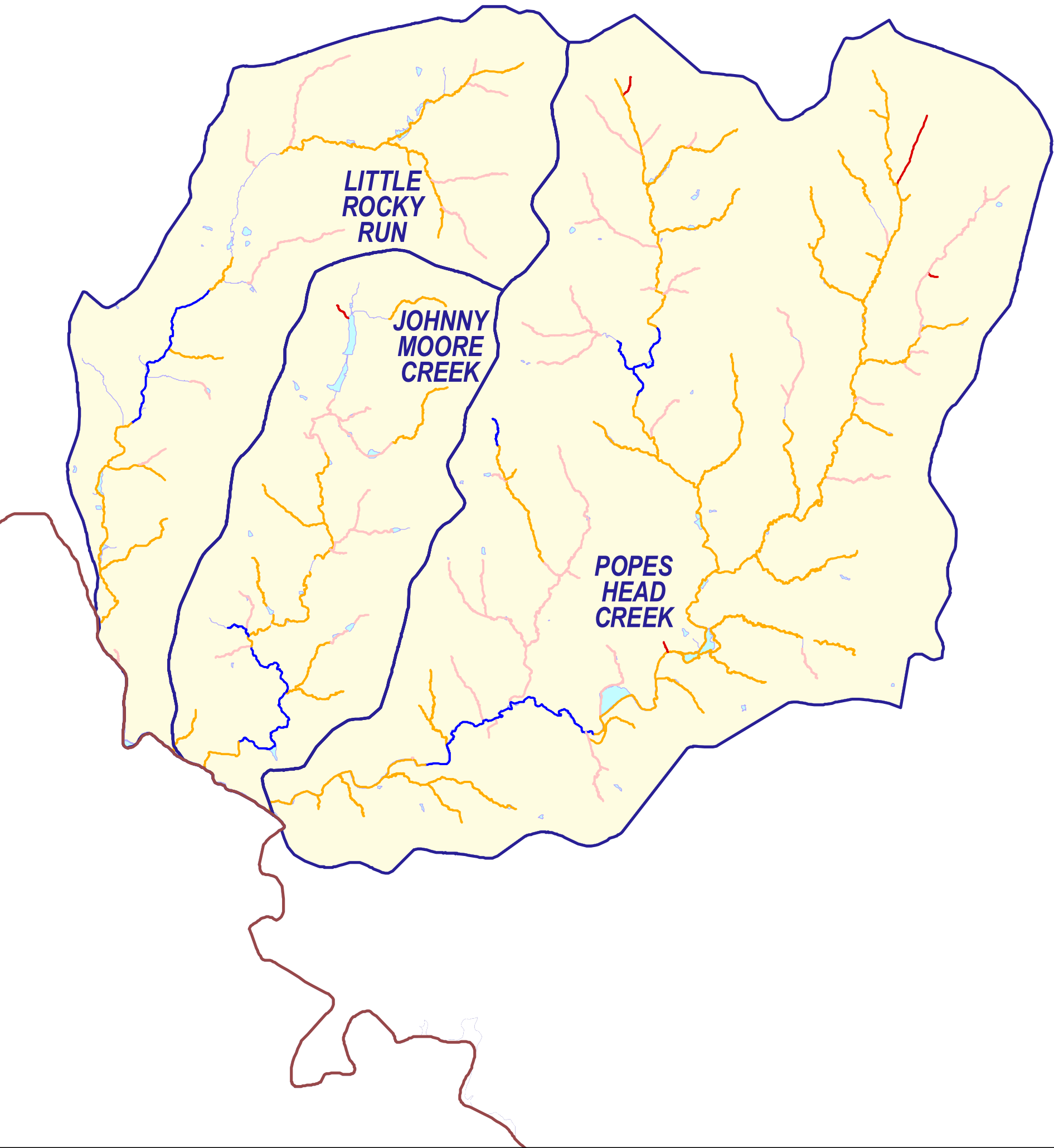
Impact Score	0	1	2	3	4	5	6	7	8	9	10	>10	Total
Deficient Buffers	0	0	2	12	12	2	14	2	0	0	0	N/A	44
Crossings	50	3	5	6	0	1	0	2	0	0	0	N/A	67
Ditches and Pipes	4	0	0	0	0	0	0	0	0	0	0	N/A	4
Erosion	0	0	0	0	0	0	0	1	0	1	0	N/A	2
Head Cut	0	0	0	0	0	1	0	0	0	0	0	N/A	1
Obstruction	3	0	1	4	1	0	0	0	0	0	0	N/A	9
Utility	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	57	3	8	22	13	4	14	5	0	1	0	0	127










TABLE 3-47
Habitat Assessment Summary for Popes Head Creek Watershed
Fairfax County Stream Physical Assessment

Stream	Linear Feet (Percent) of Stream					Total
	Very Poor	Poor	Fair	Good	Excellent	
Castle Creek	0 (0.00)	23,810 (77.00)	5,960 (19.27)	1,153 (3.73)	0 (0.00)	30,923
East Fork	0 (0.00)	10,404 (65.41)	5,502 (34.59)	0 (0.00)	0 (0.00)	15,906
Piney Branch	815 (1.18)	22,828 (32.93)	40,495 (58.42)	5,174 (7.46)	0 (0.00)	69,312
Popes Head Creek	416 (0.31)	18,687 (14.10)	103,348 (77.99)	10,060 (7.59)	0 (0.00)	132,511
Tributary to East Fork	419 (100.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	419
Tributary to Piney Branch	0 (0.00)	3,005 (100.00)	0 (0.00)	0 (0.00)	0 (0.00)	3,005
Tributary to Popes Head Creek	2,866 (28.80)	3,991 (40.10)	3,094 (31.09)	0 (0.00)	0 (0.00)	9,951
Watershed Total	4,517 (1.72)	82,724 (31.57)	158,399 (60.45)	16,386 (6.25)	0 (0.00)	262,027

TABLE 3-48
 Infrastructure Assessment Summary for Popes Head Creek Watershed
Fairfax County Stream Physical Assessment

Impact Score	0	1	2	3	4	5	6	7	8	9	10	>10	Total
Deficient Buffers	0	7	21	54	34	5	1	0	0	0	0	N/A	122
Crossings	90	36	22	13	7	2	1	1	2	0	0	N/A	174
Ditches and Pipes	17	12	2	1	2	2	0	0	0	1	0	N/A	37
Erosion	0	0	0	0	1	0	2	0	0	0	0	N/A	3
Head Cut	0	0	1	2	5	4	0	1	1	0	0	N/A	14
Obstruction	0	5	8	4	8	2	1	1	1	0	0	N/A	30
Utility	1	0	0	0	1	0	0	0	0	0	0	0	2
Total	108	60	54	74	58	15	5	3	4	1	0	0	382



-  Fairfax County Boundary
- Habitat Rating**
-  Excellent
-  Good
-  Fair
-  Poor
-  Very Poor
-  No Habitat Assessment
-  Lakes and Ponds
-  Watersheds

**WATERSHED GROUP:
LOWER BULL RUN**

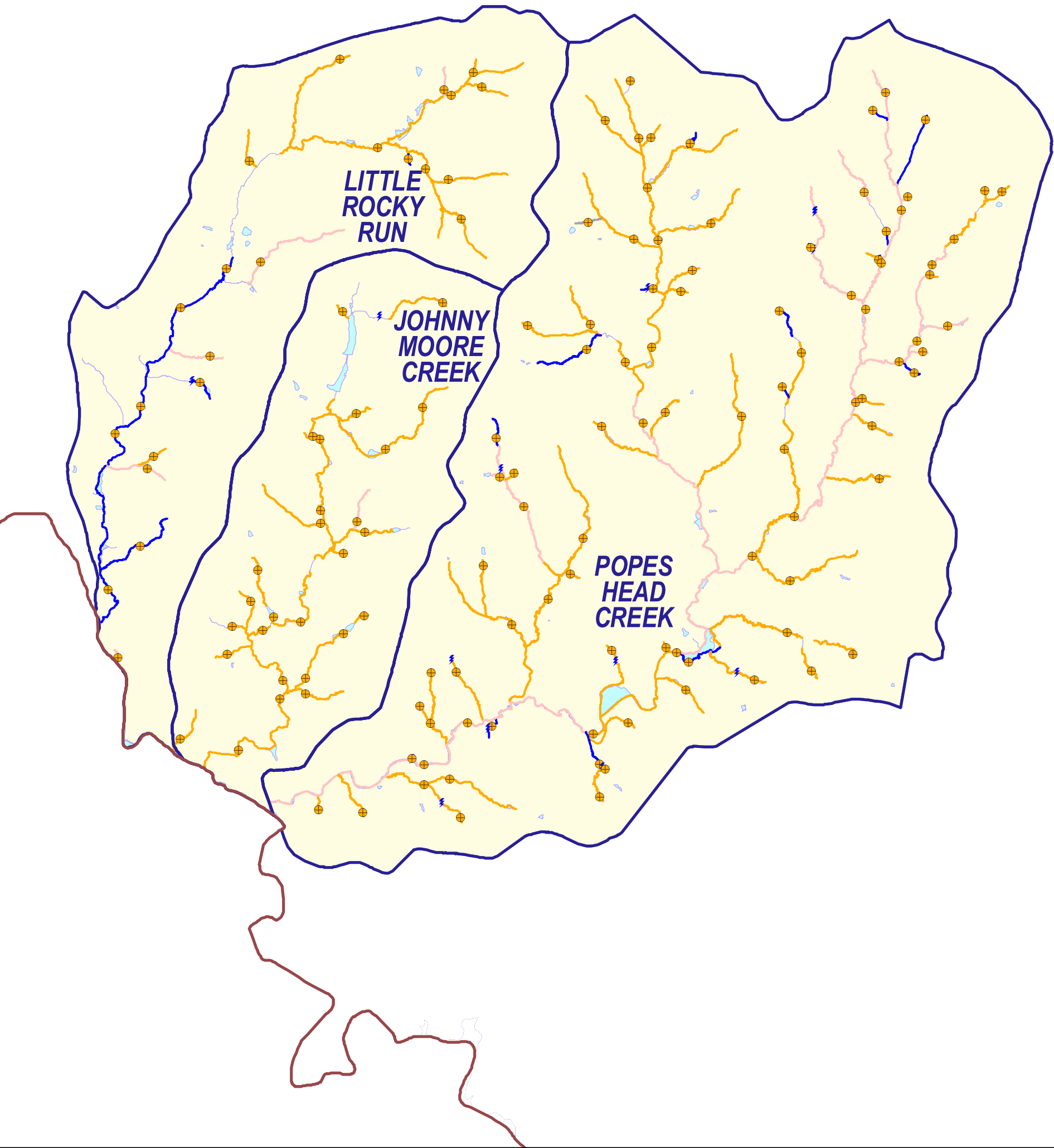


0 2000 4000 6000 8000 Feet



Figure 3-66
Habitat Assessment
Lower Bull Run Group
Fairfax County Stream Physical Assessment





- Inventory Types
- Cross Section
 - ⚡ Head Cut
- CEM Stage
- Not Assigned
 - 1
 - 2
 - 3
 - 4
 - 5
- Fairfax County Boundary
- Lakes and Ponds
- Streams
- Watersheds

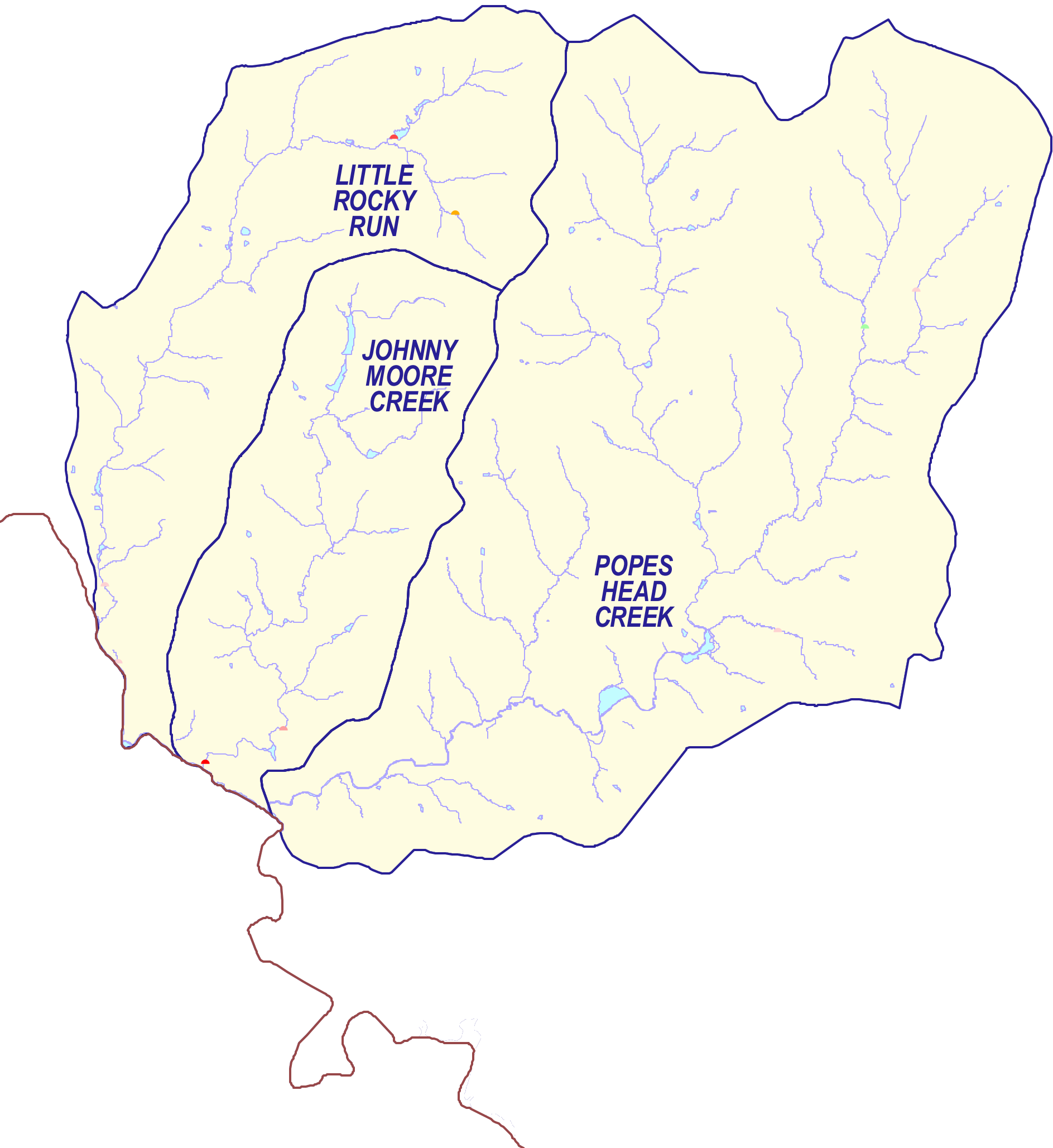
WATERSHED GROUP:
LOWER BULL RUN



0 2000 4000 6000 8000 Feet

Figure 3-67
CEM Stages
Lower Bull Run Group
Fairfax County Stream Physical Assessment





Erosion by Impact Score

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

- Fairfax County Boundary
- Lakes and Ponds
- Streams
- Watersheds

WATERSHED GROUP:
LOWER BULL RUN

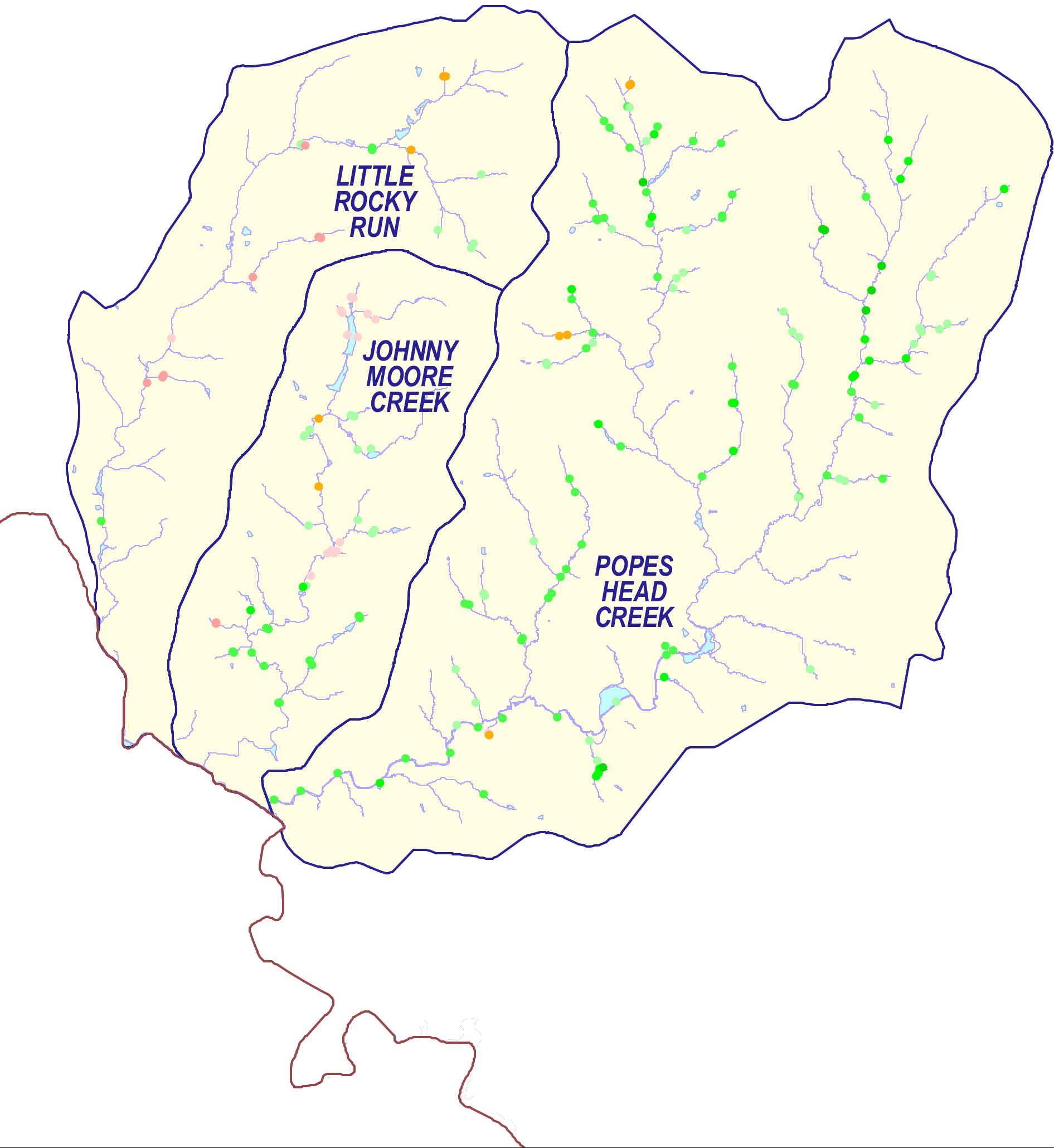


0 2000 4000 6000 8000 Feet



Figure 3-68
Erosion Impacts
Lower Bull Run Group
Fairfax County Stream Physical Assessment





Deficient Buffer by Impact Score

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

- Fairfax County Boundary
- Lakes and Ponds
- Streams
- Watersheds

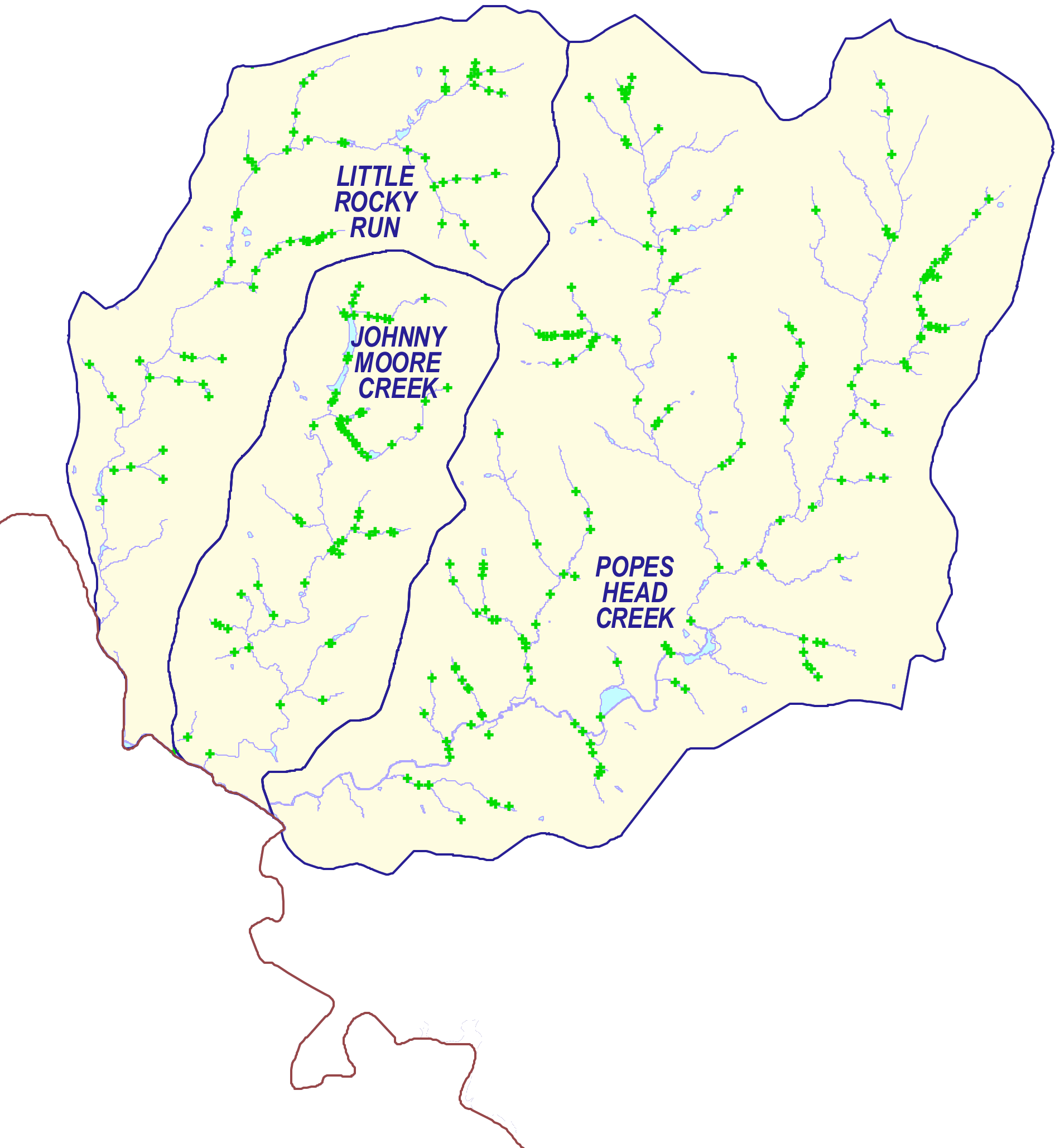
WATERSHED GROUP:
LOWER BULL RUN



0 2000 4000 6000 8000 Feet

Figure 3-69
Deficient Buffer Impacts
Lower Bull Run Group
Fairfax County Stream Physical Assessment





Inventory Type
+ Crossing

- Fairfax County Boundary
- Lakes and Ponds
- Streams
- Watersheds

WATERSHED GROUP:
LOWER BULL RUN

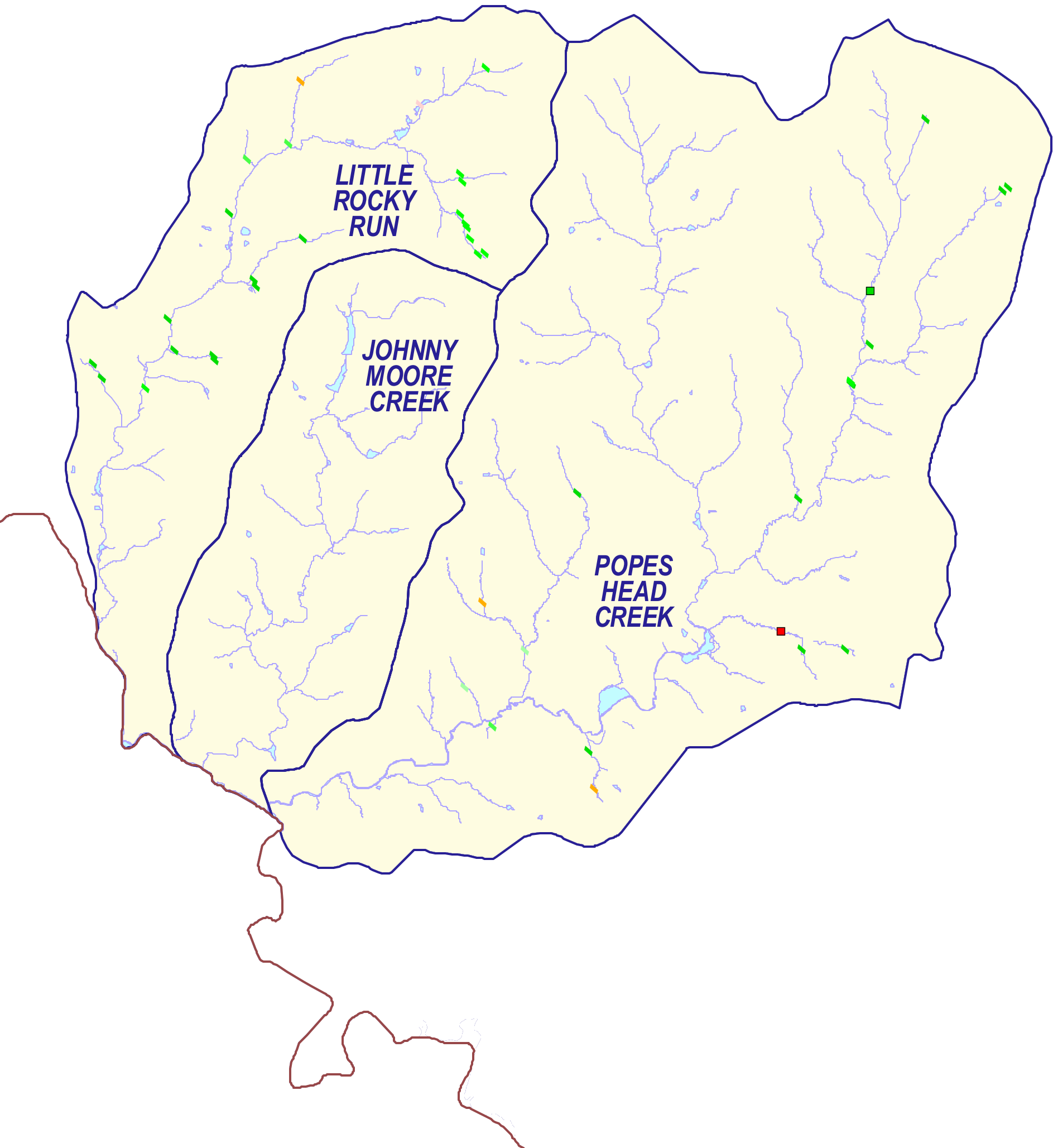


0 2000 4000 6000 8000 Feet



Figure 3-70
Crossings
Lower Bull Run Group
Fairfax County Stream Physical Assessment





Pipe / Ditch by Impact Score

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

- Fairfax County Boundary
- Lakes and Ponds
- Streams
- Watersheds

WATERSHED GROUP:
LOWER BULL RUN

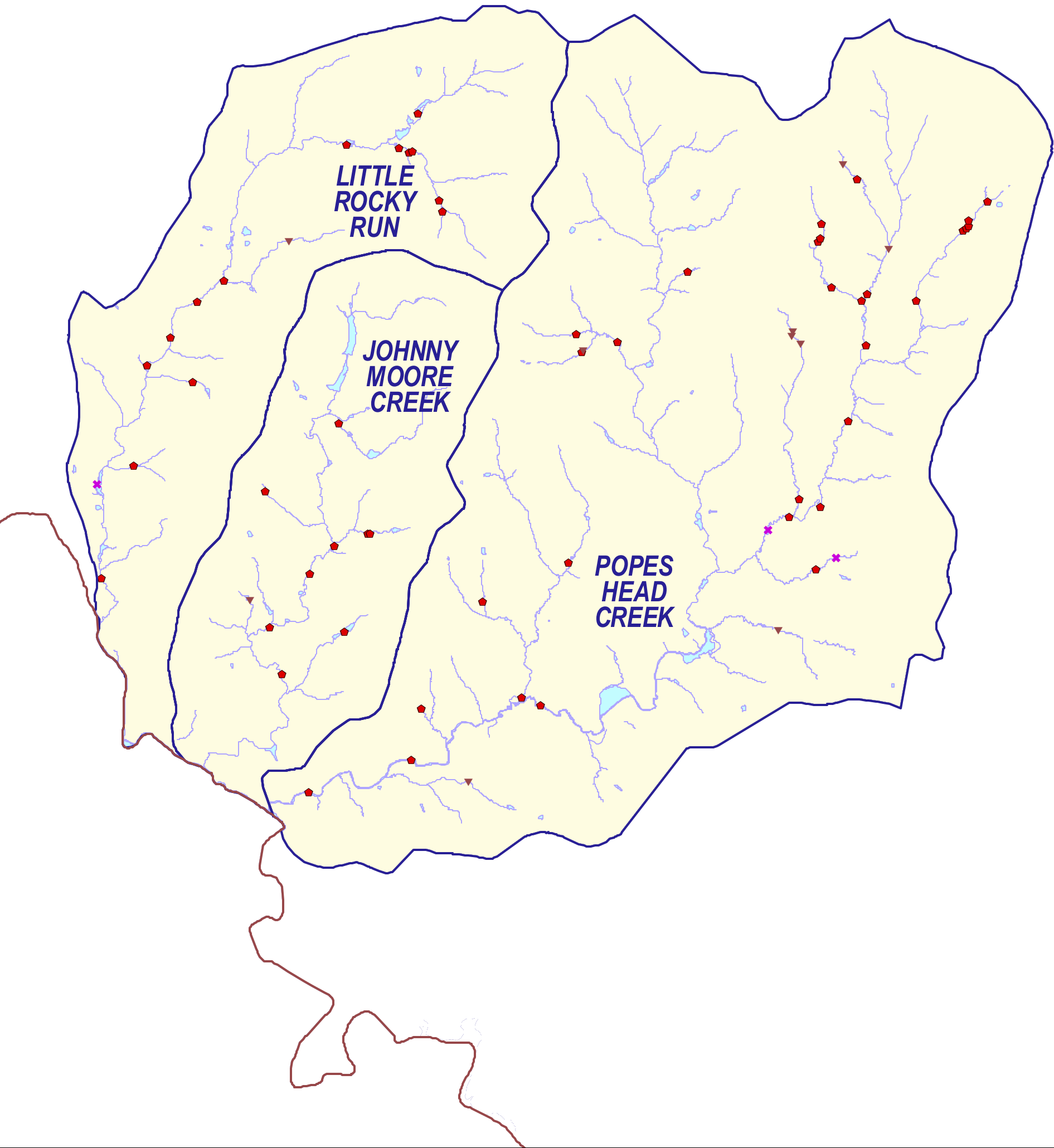


0 2000 4000 6000 8000 Feet



Figure 3-71
Pipe and Ditch Impacts
Lower Bull Run Group
Fairfax County Stream Physical Assessment





- Inventory Types
- ▼ Dump
 - ◆ Obstruction
 - * Utility
- Fairfax County Boundary
 ■ Lakes and Ponds
 ■ Streams
 ■ Watersheds

WATERSHED GROUP:
LOWER BULL RUN



0 2000 4000 6000 8000 Feet

Figure 3-72
Dumps, Obstructions, and Utilities
Lower Bull Run Group
Fairfax County Stream Physical Assessment

